

Appalachian Region and Diabetes

According to the Appalachian Regional Commission (ARC), the Appalachian region is a 205,000-square-mile region that follows the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia.

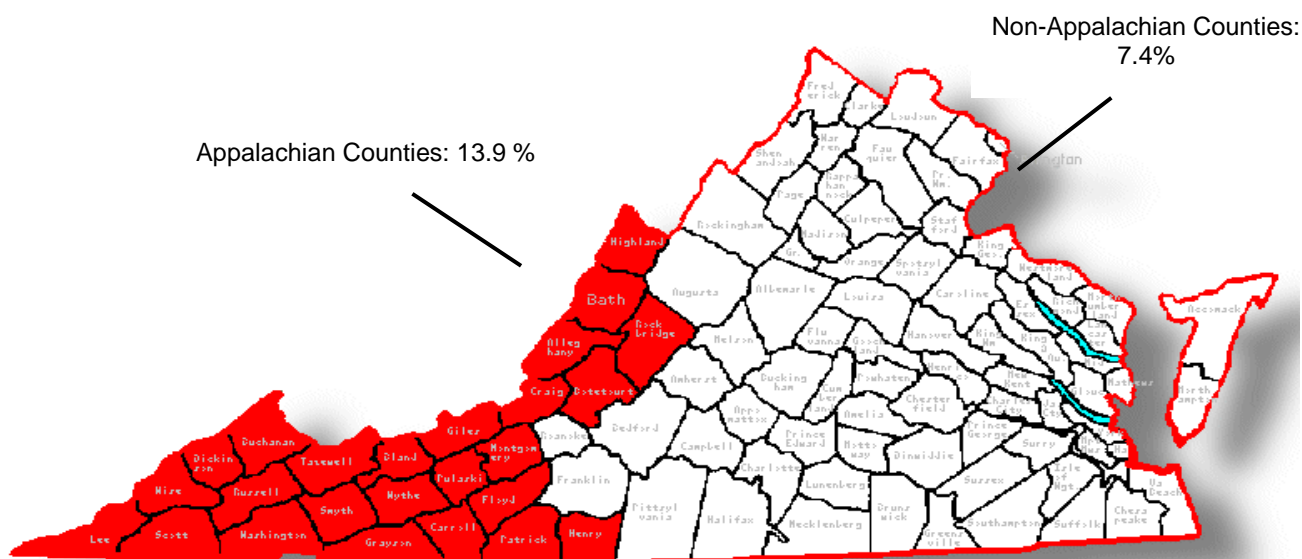
Appalachian counties within Virginia include: Alleghany, Bath, Bland, Botetourt, Buchanan, Carroll, Craig, Dickenson, Floyd, Giles, Grayson, Henry, Highland, Lee, Montgomery, Patrick, Pulaski, Rockbridge, Russell, Scott, Smyth, Tazewell, Washington, Wise/Norton, and Wythe. The following independent cities in Virginia are also within the Appalachian Region: Bristol, Buena Vista, Covington, Galax, Lexington, Martinsville, Norton, and Radford.

Appalachia is unique in terms of its geography and culture. 42% of Appalachians live in rural areas, compared with 20% in the country as a whole. Though the poverty rate has improved from 33% in 1965, the poverty rate was 18% in 2008, compared to the national rate of 14%. Persons living in Appalachia may have difficulty accessing healthcare due to geography, lack resources, and/or low socioeconomic status. According to research reported by the ARC, persons living in Appalachia also experience higher morbidity and mortality rates than persons living in non-Appalachian regions.

Virginians living in the Appalachian region have a higher prevalence of diabetes than those living in non-Appalachian areas. In 2009, diabetes prevalence was 13.9% among Appalachians, which is significantly higher ($p < 0.001$) than prevalence among non-Appalachian Virginians (7.4%).



Prevalence of Diabetes in Appalachian vs. Non-Appalachian Counties, 2009



- This is a striking example of a geographic disparity. In the Appalachian counties of Virginia, diabetes is 71% more prevalent than in non-Appalachian counties.

Significant differences between Appalachian Virginia counties and non-Appalachian counties that may contribute to the higher diabetes prevalence in the Appalachian region in 2009:

- Less than half (48.0%) of Appalachians reported having some college education or more, compared to 67.5% of non-Appalachians.*
- 32.6% of Appalachians reported earning a household income of less than \$25,000, compared to 16.3% of non-Appalachians.*
- 36.1% of Appalachians had ever been told by a doctor or nurse that their blood pressure was high, compared to 26.7% of non-Appalachians.*
- 10.4% of Appalachians reported a history of cardiovascular disease, compared to 6.5% of non-Appalachians.*
- 29.1% of Appalachians were obese, compared to 24.7% of non-Appalachians.

* $P < 0.001$

Disparities in income and education impact long-term health status through a variety of pathways, including access to healthcare, access to nutritious food, and access to current health information. Efforts to improve population health must consider disparities in socioeconomic status.

Sources: Appalachian Regional Commission: www.arc.gov/; Virginia Behavioral Risk Factor Surveillance System (BRFSS), 2009.

Data note: Percents are weighted based on demographic and household characteristics.